432 MHz AND ABOVE EME NEWS

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14.345 1600 Z SAT/SUN;

- CONTL NA NET: SCOTT, KD4LT AND JAY, K5JL.
- EUR NET: JOE, K1ROG (207-469-3492).
- EME STANDINGS: JIM STARKEY, W0KJY, 3845 CAPITOL DRIVE, FT. COLLINS, CO 80526, (970) 226-0669)
- THE WEB VERSION OF THIS NL IS PRODUCED BY W6/PA0ZN AND AVAILABLE AT: http://www.nitehawk.com/rasmit/em70cm.html

CONDITIONS:

From the reports it is hard to tell what conditions were during the July SW. For '97 we need to re-think our choice of SW dates. Perhaps as K1FO suggests in his report we need to place more emphasis on convenient moon times than any other factors... After all, if no one shows up, a low moon path loss will be of no benefit. One station that did show up was YL3AG/A, on 1296. I still have no information on the YL3AG/A operation, and do not know if this was a one-time appearance, or if they will be on again, possibly on other bands.

AA6WI:

Hoppy's July 23 cm EME Activity Report follows -- Finally restored my HPA to normal operation during June, and worked W2UHI during checkout on 27 June. On 6 July, my receive was intermittent and finally quit completely. I made 2

trips to the roof at 0100 local time to replace the LNA and Transco relay, but this didn't fix the problem. I just knew a neighbor would shoot me if I went to the roof for a 3rd time, so called it a night. G4DZU did phone and let me hear my echoes over the telephone!! On 7 July, I found a corroded Jones plug (LNA/relay voltage line to feed) which was only providing 0.9 Vdc to the LNA! I ended up just removing the Jones plug and wiring directly to restore the receive back to normal. On 7 July; surprisingly, I worked HB9BBD at a moonrise of 6 deg el, while still looking through the trees. I also worked EA6/DF5JJ, KB2AH, PA3CSG, OZ4MM and W2UHI. All had very FB signals. I only heard one other station during the Eur window, but they never transmitted long enough for me to get their call sign. I got on for 2 hours during the JA window and worked W2UHI again. No other stations were heard, but echoes were FB.

G4FUF:

Keith had a poor showing during his skeds -- As usual I worked more on random. The following did not appear QRV: JA2JRJ, JA6CZD and JA6XED. I am not sure they are worth re-skeds until I know if they are really active. I am concentrating on stations I have heard, so I would like skeds with the following stations whom I failed to attract on random: VK5MC, W9QXP, KA0RYT (heard and called for about 4 hours, apparently pol lockout, he only worked USA), N4PZ and OH3LWP. It would appear I can repeatable work stations running 2 x yagis of > 10 lambda length and with at least 500 w power. I am keen to try with anyone else desiring a sked.

EA3UM:

Magi is in a low activity mode due to involvement with his business [Tell me]. Everything is working and he QSO'd during the June SW on 70 cm K5GW (559/559), KA0RYT (O/O) and W7HAH (539/569) for initials #89,90 and 90 respectively. He is receiving excellent echoes on 23 cm, but has heard nobody else on at the times he has been QRV.

EA6/DF5.J.J:

Peter is QRV on 70 cm again after several years of absence. [He says he sent 2 letters announcing his plans to return to 432, but none were received prior to the present FAX.] He is using a 5.5 m dish with a 2.2 f/d, ring quad feed and 1300 w at the feed. Despite the deep dish Peter is doing quite well. He is receiving 12 dB of Sun noise (flux 70) for a G/T of 6.5 dB/deg. He completed initials with K5GW (569/O), OZ4MM (559/529) for 1st EA6-OZ QSO, DL9NDD (O/O), JA5OVU (449/539), NC1I (449/539), CT1DMK (M/M), G4FUF (O/O) for 1st EA6-G, DK3BU (449/O), WA4NJP (449/O), K5JL (449/O) for initial #47 and a partial with 9M2BV (O/O). Others QSO'd were UR5LX, PA3CSG, GW3XYW, SM2CEW, OK1KIR and DL9KR. CWNR were KA0RYT, W7GBI, DF6NA,

K0RZ, EA3UM, DF3RU, VE6TA, G4KGC, W8MQW and JA2KRW. Peter was also active on 1296 and contacted DH9FAG (O/O) - 3 m dish with 200 w, JR4AEP (O/O) and YL3AG/A (559/539) for the 1st EA6/YL QSO and initial #101. He will be QRV on 3 Aug on 432.008 and on 4 Aug on 1296.008. He will be away on holiday for the 3 weeks following the Aug SW, but plans to be QRV for all SWs through Oct with Saturday on 432 and Sunday on 1296.

JA4BLC:

Yoshiro updates his status -- Last weekend, 6/7 July, I worked JA2KRW, EA3UM and DF3RU on 432 MHz. My latest standings report is #255 initial /43 DXCC /32 US states on 144, #229 initial /42 DXCC /32 US states on 432, #53 initial /19 DXCC /7 US states on 1296, and #10 initial /7 DXCC /2 US states on 2304/2424. Multi-banders worked (B:144, D:432, E:1296, F:2304/2424) are: (BDEF) SM0PYP; (DEF) OE9ERC, OE9XXI, JH3EAO, WB5LUA, IN3HER, and OK1KIR; and (BEF) OZ4MM; and (BDE) OE5JFL, WD5AGO, VE3ONT, LA8LF, HB9SV, PA3DZL, VK5MC and JA7BMB. The number of two-banders worked is 44: (EF) I6PNN; (DE) F2TU, ZS6AXT, EA3UM, F1ANH, K2UYH, PA3CSG, W0KJY, F6CGJ, DF9QX, W7GBI, JR4AEP, LX1DB, SM3AKW, DF3RU and OK1CA; (BE) SM4DHN; and (BD) N4GJV, W7HAH, W7FN, KB8ZW, WB0TEM, DF6NA, DL8OBU, Y22ME (DL3BWW/DK3WG), EA3DXU, F1FHI, F8SQ, G0RUZ, HB9CRQ, HL9UH, IW5AVM, IK2EAD, JA9BOH, JA2JRJ, JL1ZCG, OZ1HNE, SM2CEW, RA3YCR, UA1ZCL, RB5EC, UA9FAD, VS6BI and WA4NJP.

K1FO:

Steve worked on 9 June during the June ARRL VHF contest W9QXP, VE6TA, KAORYT and W2CRS. NC1I reported very good activity during the Eur window, but unfortunately Steve did not get on early enough. Worked on 22 June were KAORYT, JA5OVU and WA4NJP, and on 23 June JS3SIM. Steve, like many others, thought that 22/23 June was the activity weekend. He was disappointed to find out that 6/7 July was the SW, due to the low dec and horrible operating hours for NA to Eur. Due to many other activities Steve was not able to get on for the overnight Eur window. Thankfully there was again good JA activity. Worked on 7 July were JA2KRW, JO3RNL, JR9NWC and JA5OVU. Steve has been engaged in some significant landscaping projects around his house along with clearing land for a new garage. Unfortunately, although Steve has over 6 acres of property, some strange property lines along with the terrain of his property have required that he obtain a variance to build the garage where he wants it to be located. The work required to apply for a variance has consumed a lot of his time. Steve also comments to Chris, DF9CY that Chris or any of the other EMEers who are coming to the conference and are doing additional travel, are certainly welcome to visit Steve. His QTH is about 6 hours driving time from the conference location. Steve is also sure that Frank

NC1I will also be welcoming visitors. Frank is about another hour north of Steve. [I think this can be said for all of us in the north east area.] If you would like to visit Steve be sure to check with him ahead of time as he is often called away on business trips and is presently trying to move a trip farther away from the EME conference dates. Steve's 432 MHz EME totals are #494 initial, 49 states and 75 DXCC.

K9BCT/4:

Randy writes -- I lost my bid to get a variance on my property line, so I am temporarily postponing my plans for a larger dish. I thus has for sale a Scientific Atlanta Series 8346 Earth Station Antenna Elevation-Over-Azimuth Mount and 4.6 m Reflector Assembly. This is a 15', 12 petal solid aluminum dish good to 12.5 GHz. It's in very good condition with no holes, dents or blemishes. Although I haven't had it up, I believe I have the majority of all mounting hardware. I believe I am missing one portion of the mount, but it should be complete otherwise. I have the technical and assembly manuals which give about all the information you need except for F/D. In measuring the curvature, It seems to be about 0.45. I'm sure a call to Scientific Atlanta would identify it for sure. According to the guy I got it off of, it's original cost was over \$20,000. I obviously will take much less. It is shipable, but it would be a major pain. I would much prefer a pickup. [See the For Sale section for more detail.]

KB3PD:

Rick has been fairly busy on 1296 EME. He's now up to a total of 23 states, 11 of which were worked off the moon. For now his 3.2 m dish will be in place until the end of Sept, and then will be taken down so Rick can put up some K1FO type yagis. His intention is finish up WAS on 432. He needs only Arkansas and Nebraska. On 23 cm, Rick's usually runs about 200-250 w in the shack, with about 140 w at the feed of his dish. Rick wants skeds and says he will be on for any skeds set up via the NL. On 70 cm, Rick is now using 2 x 29 el yagis and 800 w. Again, he's OK for skeds via the NL. Stations worked on 1296 are as follows: #1 KD5RO, #2 N2IQU (still needs QSL), #3 KB2AH (still needs QSL), #4 WD5AGO, #5 AA4TJ, #6 WB5LUA, #7 W0RAP, #8 W7GBI, #9 OE9XXI, #10 AA6WI, #11 K9KFR, #12 OE9ERC, #13 VE4MA, #14 OK1KIR, #15 OZ4MM, #16 NU7Z, #17 EA6/DF5JJ, #18 VE3ONT, #19 OE5JFL, #20 K2UYH, #21 F1ANH, #22 WA4OFS and #23 VE1ALQ. Before the dish comes down Rick would like to sked and work the following WA4NJP, W2UHI, W0KJY, N7ART, WB0DRL, WA9FWD and any DX willing to try.

OE9XXI:

Peter on 26 May worked on 2300 SM3AKW (559/569) and F2TU (559/559). He still has a lot of work to do to finish his new house; thus activity has been down. Despite the conflict, Peter finished a new solid state PA for 13 cm. It uses

4 x 40 w transistor PA-Kits (MT 13-D-44 from Philipp Prinz, DL2AM), combined with 2 x 6-port quadrature PCB couplers described in the April 1982 NL. Output power is about 155 w on 2300 and about 130 w on 2400. Gain is about 13 dB. For the next EME contest Peter plans to put the new PA directly at the feed horn of his dish. This should give about a 4 dB increase in power.

ON4UV:

Gilissen writes -- My 5.3 m dish is now 11 years old and the mesh has rusted out over nearly 15% of the surface. Although it is a big job (at 76), I plan to replace the mesh and will be active again on 1296. My new 3 m dish is near ready for operation on 3 cm. I can point it to .2 deg accuracy. I have 2 40 w TWTs but without power supplies. I also have an 8 w tube with a power supply. I am awaiting news on a complete higher power TWTA, and hope to be QRV on 10 GHz EME before the end of this year.

ON5OF:

Dirk's Eur/DUBUS EME CONTEST results -- The station was 16 x 23 el Flexa yagis (DL6WU type steel wire elements, 15.8 dBd/ant), coupled in groups of 4 (4 small H frames on big H frame, spacing is 1.7 m horiz and 1.6 m vert) with Aircom plus coax, 3.3 m from each coupler to the next and to ants (6.6 m from central coupler to each ant or 0.6 dB loss); Create RC5B-3 Az rotor and KLM EL 3000 el rotor; TX coax 25 m 7/8" Cellflex, 1 dB loss, to single tube 4CX250B cavity PA with max. 500 w, 400 w at the ant relay - ERP 160 KW estimated; RX SSB electronics preamp, old type 0.5 dB NF followed by new one, Converter to 28 MHz in the shack, YAESU FT-ONE receiver with 250 Hz BW (also 500 Hz, and TS440S Kenwood with 500 Hz CW filter as backup); and Sequential switching of ON7WP design. QSO'd on 23 March were OZ4MM - my 1st OZ, NC1I, N4GJV, UR5LX, KD4LT, DL9KR and K1FO, and on 24 March were DF3RU, UT5DL, G3SEK, LX1DB - 1st LX and K2UYH for a score of 12 x 11 or 13,200 points. Dirk is always available for tests and skeds (+32.3.271.08.35 tel, via the NL or via packet to ON5OF @ ON6AR.#AN.BEL.EU.)

OZ4MM:

Stig was activity for the July SW -- I worked on 6 July, DF3RU (on SSB) on 70 cm, and heard among others G4FUF, KA0RYT, EA6/DF5JJ, OK1KIR and G3HUL. Not much activity on 70 this Saturday. The next day I shifted to 23 cm and worked YL3AG/A for initial #108 - FB signal, then HB9BBD, EA6/DF5JJ, KB2AH, DF3RU, YL3AG/A again and AA6WI.

PAOAVS:

Anton reports -- We have improved our big horn antenna, so WX conditions will no longer keep us off the moon. For the purpose we have built a shack on top of the feed. It has 2 floors and is just big enough to hold the equipment and

2 operators. We have also moved the entire system (2.4 tons!) to another location. This kept us busy for quit some time. We are now QRV again on 70 cm and looking for skeds. I can be reached at (A. Vroom, Gramserweg 69, 3711 Av Austerlitz, THE NETHERLANDS; tel 0343-491930 QRL and 0343-520132 QTH.

S59DCD:

Silvo says that despite some bad luck with recent skeds he is definitely QRV. He worked on 1296 on 1 June LA8LF (O/O) and HB9SV (O/429). Heard were OE9XXI and HB9BBD. Silvo wants skeds and can be reached at ++386 602 43430 or FAX 386 602 45102 (you must ring 8 times to activate FAX).

VE1ALO:

Darrell writes -- This has been a very busy summer. As a result I have not been very active. I was active on 7 July for the SW. I did a lot of listening with my new dual band feed, which seems to be working quite well. I found libration very bad on the 7th, although echoes were very strong. My sked with S59DCD was moved to 0530 from 0730. This would have been OK during the winter months, but with all the foliage on the Birch and Maple trees to my east, I heard nothing and very, very little from any station until nearly 0700. I also heard NIL from JH5LUZ on my moonset, although my echoes were very good right down to 3 deg. I did not go away empty handed, however, I worked W2UHI and F1ANH. Both had excellent (559) signals along with libration chopping and fading.

WG3I/G4FRE:

Dave has moved from New Jersey south as of 1 July. His new address is 2543 Rim Oak, San Antonio, TX 78232 USA; tel at home is now 210 499 0274 and at work 210 474 5714. Dave's Email address remains the same: WG3I/G4FRE

ZS6AXT:

Ivo send goods news. He has recovered well from his operation and is now in Eur on travel. He was already away at the time of the July SW, but will be back for the Aug SW. He had not yet completed repairs to his 70 cm LNA, so it is not clear if he will be QRV on 432 in Aug, but he will definitely be on 1296. During the 25/26 May SW Ivo worked everyone heard on 23 cm. QSO'd were F1ANH, DD1XF, OH2AXH (twice), EA6/DF5JJ, HB9BBD and W2UHI. Nil was heard on skeds with JR4AEP, JH5LUZ, S59DCD, G4DZU and KD4LT. He called CQ for hours during the ARRL VHF contest on 8/9 June, but heard nil on 1296 except for a QSO with HB9BHU on Sunday. Conditions seemed quite good. Ivo will be visiting SM3AKW during his Eur trip and hopes to be QRV from Karl's QTH sometime in July. He is also making progress on 13, 6 and 3 cm EME projects. He hopes to acquire needed parts during his Eur trip. He still needs a TWTA and a dish for 6/3 cm. He is thinking of buying a Ku-band TVRO

system which includes a 6' dish, and wonders if anyone has had any experience adapting these dishes for EME? Ivo also notes that he has had poor luck getting into the 20 m nets. He rarely hears anyone. He plans to get on e- mail as a partial solution to his net/skeds difficulties.

Technical.

I have 3 extremely interesting papers from Chuck, W8MQW which he will be presenting at the EME Conference later this month. I plan to include portions of these papers in future NLs. [Chuck has promised to provide at the conference a special tutorial on programming the TI 320C20 digital signal processor for weak signal filtering and other magic.]

This month I have information by WA3AXV on making power dividers using waveguide. This material was stolen from the Park Rat's excellent VHF Newsletter Cheesebits.

NETNEWS

9H1GT on the island of Malta is interest in 1296 EME. He is particular interested in ideas for HPAs. His address is (S. Francalanza, Plot 24 Housing, Estate, Zejtun ZTN04, Malta).

NU7Z is now QRV on 13 cm.

KA0RYT is working toward 23 cm. Ron has a 10' dish with VE4MA feed and a 300 w PA.

HP3XUG will be back on 70 cm EME for the Sept SW. His yagis are back up. Louis is going to Florida and will bring back new cables.

ON6JY hopes to make the EME Conference in Aug which he is trying to coordinate with another professional conference in the states.

G3LTF is making good progress on getting re-established on EME from his new QTH. The shack is complete and the new mount for his dish is under construction.

W7ID has moved. His new address is 14063 Towers Dr. Caldwell, ID 83605-8233.

KB2AH added YL3AG/A to his list of 1296 initials and countries during the July SW.

FOR SALE

WA3HMK is looking for some 432 EME antennas - FO25s, CC424 mod, MK45s, etc. Chris will be moving in Sept and needs something to work on over the winter.

AK2F has a Lunar Link amplifier for sale with a new pair of EIMAC 3CX800A7 tubes (paid \$US250 each), and a 2 KV (110V input) supply. One or 2 guys were interested in putting it on 440 for repeater use, but he would rather see it end up on EME.

KB3PD is looking for 2 KLM 432-30 LBX's yagis

K9BCT/4 has for Sale a Scientific Atlanta 4.6 m Earth Station dish, 12 petal, solid Al design, good to 12.5 GHz. Like new with most mounting hardware. Also a 1.8 m solid Al dish. Good to 44 GHz. Both antennas shipable, but would much prefer pickup. Call Randy, K9BCT/4 at (954) 723-5788/472-3846 or Email Randy, K9BCT/4

KAORYT is looking for a CC **424B yagi - modified or not**. Ron's tel # is 612-472-5201.

WA1ZPI Wanted: **Start-up 432 station around the \$400 range**. Transverters OK. Contact Bob, WA1ZPI, e-mail <u>Bob, WA1ZPI</u> or snail mail (Bob Knott, WSBE-TV, 50 Park Lane, Providence, RI 02907).

PA0AVS has for sale an **R&S large 144 MHz cavity PA with new 3CX3000A7 tube**- it needs only HV supply - for \$US1250; a HV transformer for 2.5 KV at 1 amp for \$US175, RACAL 500 w solid state TX (1-30 MHz) for \$US1,000; 2.6 m solid Alum Dish \$US300. See Anton's report for address and telephone numbers.

N6TX The SETI League has reprinted **the original report (book) on Project**Cyclops - the Interstellar Receiving System proposed in the 70's. This book is filled with technical material of great interest to EMEers. It is a available for \$US20 in US and \$US24 elsewhere postpaid. Order from the SETI League, Inc., PO Box 555, Little Ferry, NJ 07643 USA.

K1FO's Lunar-Link, 1500 w amplifiers for 144, 222 and 432 MHz are still available. Steve has another batch of plate circuits headed out to the silver plater and will have units available as soon as the parts are back. He plans to have some units at the EME conference. For more info contact Steve at 203-421-3377.

FINAL: Klaus notes that the list of skeds for the Aug SW is very short. Part of the problem is that the EME Net has been rather quiet. Scott reports a much smaller turn out than in past summers, although he has been averaging about 12 checkins per weekend. Another factor this month is the closeness of our big International EME

Conference in Washington/Baltimore. I hope this is an indicator of big turnout at the conference. I could not be on for the last SW because of a conflict with my daughter's wedding, and I will not be on for the Aug SW because of an overlap with our summer vacations plans, (I will be in Israel for 2 weeks). I will be at the EME Conference and expect to see all of you there! Sally and I invite all conference attendees to pay us a visit - either before of after the conference.

73, A1 - K2UYH.

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Skeds for AUG 3
Time
      432.070
0230z PY5ZBU-ZS6AXT
0830z K1FO -DL3EAG
1400z JH4JLV-KD4LT
2200z DL3EAG-UR5LX
2300z IW5AVM-7M2PDT
Skeds for AUG 4
Time
      432.040
2230z DL3EAG-SM4IVE
2330z G4FUF -VK5MC
Skeds for AUG 3
Time
      1296.050
1300z JA7BMB-VE1ALQ
2300z ZS6AXT-JR4AEP
Skeds for AUG 4
Time
      1296.050
0000z G4DZU -ZS6AXT
0400z KB3PD -ZS6AXT
0430z KD4LT -ZS6AXT
0500z VE1ALQ-SM6CKU
0530z VE1ALQ-OE5JFL
0600z VE1ALQ-PA3DZL
0630z VE1ALQ-G3LTF
1420z JH5LUZ-VE1ALQ
2300z ZS6AXT-JH5LUZ
2330z S59DCD-ZS6AXT
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LATEST INFO ON INTERNATIONAL EME CONFERENCE IN WASHINGTON DC.

Do not forget to read it!

This information was obtained from <u>Scott</u> , <u>KD4LT</u>
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For comments or corrections: Rein, W6/PA0ZN.